Sveučilište J.J. Strossmayera u Osijeku

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Dvopredmetni sveučilišni preddiplomski studij engleskog jezika i književnosti i njemačkog jezika i književnosti

Matea Karniž

Znanost i znanstvenik u djelima H.G. Wellsa

Završni rad

Mentorica: izv. prof. dr. sc. Biljana Oklopčić

Osijek, 2018.

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Science and Scientist in the Works of H.G. Wells

Bachelor's Thesis

Supervisor: Dr. Biljana Oklopčić, Associate Professor

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Contents

Abstract

H.G. Wells is one of the most influential science fiction writers. Although his fiction covers a broad span of themes, in his early works, which belong to the genre of science fiction, the recurring themes are science and scientists. By analyzing different characters, this paper will try to explain Wells' worldview and his understanding of what it means to be human and a scientist. This BA paper will thus focus on how Wells views and portrays scientific progress and its influence on scientists and society.

Keywords: H.G. Wells, science fiction, science, scientist, mad scientist

Introduction

H.G. Wells is one of the most famous science fiction writers. He is also called the "Father of Science Fiction" because of his great influence on the development of the genre. This paper will try to explain the term "science fiction," Wells' influence on it, and his great contribution to the genre. The first chapter will provide the definitions of science fiction and how it has developed throughout history. It will also explain the complexity of categorizing a literary work into the genre of science fiction. The second chapter describes how H.G. Wells has influenced the development of science fiction and which scientific theories have had influence on his literary work. Furthermore, the trope of the mad scientist will closely be analyzed and exemplified by the characters of Dr. Moreau from Wells' novel *The Island of Dr. Moreau* and Griffin from *The Invisible Man.* The third chapter will further analyze the trope of the mad scientist in *The War of The World*s and *The First Men in the Moon* and show how it has exceeded the terrestrial boundaries. In the final chapter, this paper will take a closer look at Wells' criticism of the human evolutionary theory and how he expressed it in his novella *The Time Machine.* The aim of this paper is to illustrate the theme of science and scientist in his early works. The main focus will be on scientific progress and evolution of human kind.

1. Definition of Science Fiction

When talking about the term science fiction, everybody already has an approximate idea about what it really is. To mind come the narratives about space and time travel, humans in the far future, or encounters with alien species. Fantastic worlds different from the reality humans live in are described. However, when it actually comes to defining the genre of science fiction opinions collide. Science fiction is one of the most challenging genres to define. According to Adam Roberts, the most influential science fiction critics Darko Suvin, Robert Scholes, and Damien Broderick each provided a significant definition of science fiction. In 1972, Darko Suvin defined science fiction as "a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment" (qtd. in Roberts 7-8). "Estrangement" means that the literary work has to alienate the reader from the real world and "cognition" implies the reasoning that makes the reader understand the setting of the work. If a work does not possess both traits, it would either be a purely scientific work or the reader would not be able to understand it. The "formal device" is the novum that Suvin describes as the difference between the possibilities in the fictional and the "empirical environment," i.e. the real world. It is also important that the scientific laws described in the fictional work are in accordance with the restrictions of science. They should be plausible and rational. However, many SF literary works do not abide to the restrictions of science but explain the occurring phenomena in the manner of scientific discussion. Roberts introduces the definition of science fiction of Damien Broderick, another literary critic and a science fiction author, as well; according to Broderick, people recognize the genre such as it is because it possesses "icons" that are considered to be science fiction, which are for example time and time travel, robots, and the contact with extraterrestrials (qtd. in Roberts 11). Robert Scholes agrees with these theories but argues that, because science fiction portrays a world different from the real one, it is not merely trivial escapist literature but "fiction that offers us a world clearly and radically discontinuous from the one we know, yet returns to confront that known world in some cognitive way" (qtd. in Roberts 10).

Furthermore, Roberts brings up a comparison of two novels to describe the difficulty of defining science fiction and categorizing literary works into the genre. In *The Jonah Kit*, the novel by Ian Watson, it is possible to transfer the human consciousness to the brain of a

whale; in Franz Kafka`s short story “Metamorphosis,” the main character wakes up one morning to find himself turned into an insect. Watson’s novel is categorized as science fiction, whereas Kafka’s story is not. On the one hand, Roberts argues that science fiction contains a broader range of fantasy literature and therefore both literary works can be considered science fiction. On the other, as in “Metamorphosis” the emphasis is on the character and his emotions rather than on the scientific explication of the transformation process, the short story defies being classified as science fiction. Watson’s novel, however, “is placed in a context of scientific research and is given a particular rationalization, an explanation for how it has come about” (Roberts 4). Science fiction literary works require rationalization in scientific terms even though they can be placed far beyond the limits of actual science.

2. Herbert George Wells and the Theme of Science and Scientist

Herbert George Wells, one of the most important science fiction writers even today, was born in 1866, in Bromley, Kent, southeast of London. When he broke his leg as a seven-year-old boy, he spent his time reading a lot of books, which later developed into love for literature and the wish of becoming a writer himself.

Herbert George Wells has not only greatly influenced the development of science fiction, or "scientific romances" as he called his literary production, but has also had a great influence on other writers, some of whom could not deny his powerful imagination and magnificence of his mind even if they criticized his work. The first years of his writing career Wells spent writing science fiction novels. Some of his most famous early works are *The Time Machine* (1895), *The Island of Dr. Moreau* (1896), *The Invisible Man* (1897), *The War of the Worlds* (1898), *When the Sleeper Wakes* (1899), and *The First Men in the Moon* (1901). As a former student of T.H. Huxley at the Normal School of Science in South Kensington, Wells incorporated Huxley's ideas of evolution into his works.

All his early novels are the products of Wells' idea that the scientific and technological progress, and the rapid acquisition of knowledge, would affect mankind. He describes a humanity that has gone scientifically astray. One of his fears was that humankind would develop scientifically and technologically but would degrade morally. Humans would devolve instead of evolve. Evolution plays a big part in the development of his theories; there is a constant struggle for survival, humans transform with external influence, and will one day develop into beings that are rational and without any emotion or empathy.

In 1897, Wells published his most famous newspaper serial *The War of the Worlds* in which he describes the invasion of London and Surrey by rational and compassionless Martians who feed on human blood, but are whipped out because they did not possess the immunity to an Earth`s bacteria. In the novel, Wells toys with the idea of "what happens when men who think of themselves as lords of creation are suddenly confronted with a race that is far more advanced in its technology and science" (Cornils 25). On the one hand, a soldier thinks of the Martians as just merely animals and on a far lower hierarchy status than the humans: "It ain't no murder killing beasts like that" (*The War of the Worlds* 58), but on the other, the narrator compares "our minds as ours are those of the beasts that perish, intellects vast and cool and unsympathetic" (*The War of the Worlds* 5) to that of the Martians.

The invasion of Earth by technologically more advanced Martians is used as an allegory for the colonialization of the primitive cultures by the advanced and scientifically sophisticated Western societies, which disregard the tradition of the indigenous peoples. Instead of England, it is India and Africa that are invaded. The novel sticks to the Darwin's law of the survival of the fittest because the Martians are not immune to the bacteria that wipes them out. However, ruthless "competition within species is often morally questionable" (McCarthy 48).

The Invisible Man experiments with the possibilities humans would have if they were not limited in action by social norms. Wells himself attended the Normal School of Science in London where he came to know about the romantic notion of science, which had a great influence on his writing. Wells incorporates his teacher's Thomas Huxley's pessimistic view on evolutionary theory, especially on the brutality of natural selection. Wells' protagonist is a scientist. His invisibility is explained by scientific discourse: the "mad scientist" Griffin conducted scientific research, therefore making it rational and plausible. Griffin's invisibility alienates him from the society, which is one of the Wells' beliefs about science: science denies humanity. Science, if misused, eradicates the emotional and compassionate part of humans.

2.1.1. The Mad Scientist

Before describing the trope of the mad scientist in the works of H.G. Wells, it is important to understand that in the nineteenth century Victorian era, genius, both the trait and the person possessing this trait, was associated with insanity and was to be categorized as a mental illness. Many published works on this topic were rather unscientific, but nevertheless encouraged the spreading of this assumption:

> Late-nineteenth- and early-twentieth-century British and Continental authors produced hundreds of monographs on genius and insanity. The cumulative result was the widespread belief in a "scientific" relationship between genius and mental illness during the late-Victorian era – even though the volumes making this claim were surprisingly unscientific, relying primarily upon anecdotal evidence rather than experimental or statistical data. (Stiles 321)

Furthermore, for the Victorians the ideal was the average man and their characteristics were measurement of how much a person is heathy and human. The Victorians "pathologized genius and upheld the mediocre man as an evolutionary ideal" (Stiles 322). The French psychologist Jacques Moreau, who most probably was the role model for Wells' Dr. Moreau, defined the genius as "an unfortunate, if occasionally useful, biological anomaly. He further suggested that 'the idiot, the hysteric, the epileptic, the madman, as well as the genius, are . . . branches growing from the same tree'" (Stiles 325).

Therefore, the genius, or more specifically the scientific scientist, could be used as a trope in literature and developed into the mad scientist. After the Industrial Revolution and the biological discoveries, two stereotypes of the scientific scientist emerged in literature. The first stereotype is the Alchemist and the second one is the Mad Scientist that has discarded emotions in the name of science. The mad scientist appears first and foremost as a selfish, corruptible, socially isolated, selfish, success-seeking figure. He has insatiable hunger for power and is ready to sacrifice everything, compassion and morality, even the world, to achieve his goals. The mad scientist embodies the fear of conducting scientific experiments without any personal responsibility. It allows the scientist to create whatever he desires, may it be the key to invisibility or literal monster.

Nevertheless, the brilliance of the mad scientist cannot be denied. The mad scientist is in fact an intelligent and creative figure that is caught between the science with and without personal responsibility and morality. This split of personality can best be seen in Robert Louis Stevenson's *The Strange Case of Dr. Jekyll and Mr. Hyde* where the scientist literally creates another personality that has no sense of morality or compassion, which later results in the demise of both characters. The mad scientist carries within himself self-destructive tendencies that manifest themselves one way or another. The scientists, gifted with an immense imagination and creativity, live alienated and secluded from the world and society. They have created their own space dedicated to scientific research. It is not until their inner world is intruded by the outside world that their amorality and wickedness are revealed. They themselves lose the ability to tell wrong and right apart due to their dedication to higher principles. In his works, Wells explores the idea of how far scientists would actually go in their scientific research in the search for knowledge and discoveries. This trope will be further discussed and explained through the characters that may be seen as the perfect example of it: Dr. Moreau from *The Island of Dr. Moreau* and the science fanatic Griffin from *The Invisible Man*.

2.1.1. Dr. Moreau (*The Island of Dr. Moreau*)

As previously mentioned, Wells may have used the real-life Jacques Moreau, who had great influence on Wells' writing, as a model for the character of Dr. Moreau in the novel *The Island of Dr. Moreau*. Described as "a massive grey-haired man in dirty-blue flannels" (*The Island of Dr. Moreau* 25), Dr. Moreau is first introduced as a companion to Montgomery who had also left a great first impression on a ship wreck survivor Prendick because "he had the squarest and most resolute face" (*The Island of Dr. Moreau* 25) Prendick had ever seen. At first, it seems strange that Prendick is not allowed to accompany Montgomery to the island. When finally on the island, Prendick is confused by the looks of the servants as they do not seem wholly human: "'He's unnatural,' I said. 'There's something about him— don't think me fanciful, but it gives me a nasty little sensation, a tightening of my muscles, when he comes near me'" (42-43). At the mention of the name "Moreau," Prendick remembers the so-called "Horrors of Moreau." Moreau was "a prominent and masterful physiologist, well-known in scientific circles for his extraordinary imagination and his brutal directness in discussion" (*The Island of Dr. Moreau* 39). Yet, his gruesome experimentations were revealed and he had to flee from England. As Prendick explains, "it was not the first time that conscience has turned against the methods of research" (*The Island of Dr. Moreau* 39) and disagrees with the rejection Moreau's research had suffered: "His desertion by the great body of scientific workers was a shameful thing" (*The Island of Dr. Moreau* 39). After Prendick gathers some information about the island`s inhabitants, he comes to the conclusion that Dr. Moreau and Montgomery were turning humans into animal look-alikes, the truth being the complete opposite: "These creatures you have seen are animals carven and wrought into new shapes" (*The Island of Dr. Moreau* 88). Dr. Moreau further explains his intentions: "I'm puzzled why the things I have done here have not been done before" (*The Island of Dr. Moreau* 87). Prendick expresses his sympathy with the tortured animals but to Dr. Moreau the pain, which the animals have to endure, represents just a small, insignificant part in his research:

> Oh, but it is such a little thing! A mind truly opened to what science has to teach must see that it is a little thing. It may be that save in this little planet, this speck of cosmic dust, invisible long before the nearest star could be attained—it may be, I say, that nowhere else does this thing called pain occur. But the laws we feel our way

> towards—Why, even on this earth, even among living things, what pain is there? (*The Island of Dr. Moreau* 91)

Dr. Moreau embodies a heartless and cold scientist who conducts gruesome experiments without any regard for the feelings of his patients: "'To this day I have never troubled about the ethics of the matter,' he continued. 'The study of Nature makes a man at last as remorse-less as Nature. I have gone on, not heeding anything but the question I was pursuing; and the material has—dripped into the huts yonder'" (*The Island of Dr. Moreau* 93). Dr. Moreau is completely indifferent towards his experiment subjects and does not even consider them living creatures: "The thing before you is no longer an animal, a fellow-creature, but a problem! Sympathetic pain,—all I know of it I remember as a thing I used to suffer from years ago" (*The Island of Dr. Moreau* 93). His disdain for human affection can also be seen in the mentioned quote because he implies that emotions are something he "suffered" from.

Dr. Moreau is further described as a man who has "fallen under the overmastering spell of research" (*The Island of Dr. Moreau* 40). When he tells Prendick: "Pain, pain and pleasure, they are for us only so long as we wriggle in the dust" (*The Island of Dr. Moreau* 92), he shows that pain and pleasure are irrelevant for him. His curiosity and thirst for knowledge have made him into a scientist who will cross the boundaries and push the limitations of science. Nevertheless, he feels apathy towards the "Beast People" he created because they still do not meet his expectations, let alone exceed them: "They only sicken me with a sense of failure. I take no interest in them" (*The Island of Dr. Moreau* 98).

Prendick, who indirectly supported Dr. Moreau's research, eventually realizes the atrocities that the experiments actually are. He questions the morality of the experiments and whether scientific progress is actually worth the suffering of ignorant creatures:

> Before, they had been beasts, their instincts fitly adapted to their surroundings, and happy as living things may be. Now they stumbled in the shackles of humanity, lived in a fear that never died, fretted by a law they could not understand; their mock-human existence, begun in an agony, was one long internal struggle, one long dread of Moreau—and for what? (*The Island of Dr. Moreau* 121)

The memories of the island and the change of the Beast People into what they initially were, beasts, leaves a deep scar on Prendick as he is left incapable of returning to his old life:

"I could not persuade myself that the men and women I met were not also another Beast People, animals half wrought into the outward image of human souls, and that they would presently begin to revert,—to show first this bestial mark and then that" (*The Island of Dr. Moreau* 167). Prendick's image of humans is distorted, implying that the transformations that humans experience through scientific progress are corrupting: "I feel as though the animal was surging up through them; that presently the degradation of the Islanders will be played over again on a larger scale" (*The Island of Dr. Moreau* 168), and that humans may become "beasts" without emotions. After Dr. Moreau's death, the creatures he created returned to their previous conditions, demonstrating that he was in fact the abnormality.

2.1.2. Griffin (*The Invisible Man*)

The character of Griffin from the novel *The Invisible Man* is obsessed with science and his research so much that he ends up killing his own father because of financial support for his research. He keeps the results to himself in fear that someone else might take credit for it. He is so involved in his research that he ignores the consequences of becoming invisible.

After conducting the experiment on himself and becoming invisible, he feels so powerful that he commits numerous crimes. However, his acquired "superpower" brings inconveniences, which he was not expecting and he later comes to the realization that:

> The more I thought it over ... the more I realized what a helpless absurdity an invisible man was, -in a cold and dirty climate and a crowded civilized city. Before I made this mad experiment I had dreamt of a thousand advantages. That afternoon it seemed all disappointment. I went over the heads of things a man reckons desirable. No doubt invisibility made it possible to get them, but it made it impossible to enjoy them when they were got. (*The Invisible Man* 70)

He cannot eat food because he can then be seen. When he wears clothes, even his face has to be covered as it is described:

> Everything was ruddy, shadowy, and indistinct to her, the more so since she had just been lighting the bar lamp, and her eyes were dazzled. But for a second it seemed to

> her that the man she looked at had an enormous mouth wide open, -a vast and incredible mouth that swallowed the whole of the lower portion of his face. (*The Invisible Man* 5)

He cannot spend the money he steals when and how he wants. This "superpower," which should have made him invulnerable, has made him helpless: "He rarely went abroad by daylight, but at twilight he would go out muffled up invisibly, whether the weather were cold or not, and he chose the loneliest paths and those most over-shadowed by trees and banks" (*The Invisible Man* 12). He goes from a scientist with a promising future in his field of study to a representative of science without compassion and humanity. He, for instance, understood why the cat, which he first conducted the experiment on, seemed to be in agony, but had no real sympathy for its pain and agony. The invisibility Griffin casts upon himself does not only manifest itself literally in his physical form but also reflects on his own position in society as well as other bright minds of his time. Being an outcast in the society and in the circle of distinguished scientists has eventually caused his growing anger to culminate. He has no regard for the benefits of his research for humankind, the most important thing is to satisfy his own wishes and desires, even if it means that he has to commits atrocities:

> To do such a thing would be to transcend magic. And I beheld, unclouded by doubt, a magnificent vision of all that invisibility might mean to a man, -the mystery, the power, the freedom. Drawbacks I saw none. You have only to think! And I, a shabby, poverty-struck, hemmed-in demonstrator, teaching fools in a provincial college, might suddenly become-this. (*The Invisible Man* 55)

The aforementioned self-destructive nature of scientist manifests itself in Griffin as well. He has brought upon himself his own downfall; due to his anger and selfishness, which was caused by his inability to integrate himself into society, he sought vengeance and committed heinous crimes, which ultimately leads to his death. His breakthrough – the discovery of the concoction that turned him invisible – was supposed to have a completely opposite effect. His invisibility was supposed to make him visible to the world, providing him with the recognition he so strongly longed for. His plan, however, not only backfires but also makes him even more miserable.

Griffin meets a tragic end when he dies in a police chase. Just as Dr. Moreau's creatures became animals again after his death, so has Griffin's presumed irreversible invisibility been lifted:

And there it was, on a shabby bed in a tawdry, ill-lighted bedroom, surrounded by a crowd of ignorant and excited people, broken and wounded, betrayed and unpitied, that Griffin, the first of all men to make himself invisible, Griffin, the most gifted physicist the world has ever seen, ended in infinite disaster his strange and terrible career. (*The Invisible Man* 86)

3. From the Mad Scientist to Alien

Stiles states that "Wells's scientific romances about extraterrestrials, *The War of the Worlds* and *The First Men in the Moon*, literally alienate the concept of the mad scientist" (333). In *The War of The Worlds*, Earth is attacked by superior aliens from Mars, whereas in *The First Men in the Moon* Dr. Cavor becomes the alien, landing on the Moon among insect-like creatures Selenites.

Wells was inspired by the French zoologist Jean Baptiste Lamarck to describe aliens as creatures with large heads and small bodies. According to Stiles, "Lamarck and his followers suggested that 'hypertrophy' or excessive growth of any given body part - in this case, the brain - was always compensated by atrophy of other body parts" (328). This means that if a scientist regularly uses his brain, it will become stronger and therefore larger, while if any other organ, or the whole body, is not used, it will gradually become weaker and smaller until it loses its function or entirely disappears. The Martians are therefore an alien depiction of the development of the immoral and unfeeling mad scientist into a creature whose entire body has lost its function in favor of the brain. The Martians are a representation of what would actually happen if every human evolved into a genius. All humanity would be lost and immorality would spread across the world. When the Martians first arrive on Earth, they immediately show that they are merciless and deprived from any empathy. They kill humans and eat the ones that have survived. They would have quickly out-powered the military forces and almost taken over the entire planet if they had been immune to the bacteria on the planet. Stiles states that "[t]hese giant brains from outer space epitomize the mad scientist trope, in which the conscienceless, cosmopolitan scientist achieves world domination and wreaks havoc on human subjects" (334). Wells compares the Martian evolution with the possible evolution of human kind:

> [T]he perfection of mechanical appliances must ultimately supersede limbs; the perfection of chemical devices, digestion; that such organs as hair, external nose, teeth, ears, and chin were no longer essential parts of the human being, and that the tendency of natural selection would lie in the direction of their steady diminution through the coming ages. The brain alone remained a cardinal necessity. (*The War of the Worlds* 203)

Wells, furthermore, gives an insight into what the future for humans would be:

> There is many a true word written in jest, and here in the Martians we have beyond dispute the actual accomplishment of such a suppression of the animal side of the organism by the intelligence. To me it is quite credible that the Martians may be descended from beings not unlike ourselves, by a gradual development of brain and hands … at the expense of the rest of the body. Without the body the brain would, of course, become a mere selfish intelligence, without any of the emotional substratum of the human being. (*The War of the Worlds* 203-204)

The correlation between the Martians, who are feeding on humans, and the possible change of the human body is thus obvious: "As human flesh is sacrificed to hungry giant brains, the evolutionary possibility of the body dwindling at the expense of the bulging cerebrum comes vividly to life" (Stiles 335).

In *The First Men in the Moon*, the alien is actually the chemist Cavor who travels to the Moon after producing a "Cavorite flying machine" (*The First Men in the Moon* 27) made from a substance containing different kinds of metal that is able to defy gravity. There he encounters insect-like aliens he calls the Selenites:

> There was no nose, and the thing had dull bulging eyes at the side—in the silhouette I had supposed they were ears. There were no ears. . . . I have tried to draw one of these heads, but I cannot. There was a mouth, downwardly curved, like a human mouth in a face that stares ferociously … The neck on which the head was poised was jointed in three places, almost like the short joints in the leg of a crab. The joints of the limbs I could not see. (*The First Men in the Moon* 126)

Just as in *The War of The Worlds*, here is also a parallel drawn between the extraterrestrials and human geniuses. Just as Dr. Moreau, Cavor is an unmarried ambitious scientist, but unlike Dr. Moreau he is not amoral. Stiles states that Wells "likens monstrous alien life forms to the moral monstrosities of which unscrupulous geniuses are capable" by describing them with similar physical and mental traits (336).The upper-class Selenites are physically similar to the Martians: the brains are enlarged at the cost of the rest of the body. Each Selenite specializes in a scientific field as well:

> his brain grows continually larger, at least so far as the portions engaging in mathematics are concerned; they bulge ever larger and seem to suck the life and vigor from the rest of his frame. His limbs shrivel, his heart and digestive organs diminish, his insect face is hidden under its bulging contours. (*The First Men in the Moon* 277)

Again, just as the Martians use mechanical devices to move, some intellectual Selenites have to be carried from place to place because their brain has evolved so much that the body has shriveled. The prime example of that would be the Grand Lunar, the Selenite ruler. His brain has grown so much that he does not even have a face anymore, let alone a proportionally sized body, being thus a depiction of the unrestrained evolution of the mind:

> At first as I peered into the radiating glow this quintessential brain looked very much like an opaque, featureless bladder with dim, undulating ghosts of convolutions writhing visibly within. Then beneath its enormity and just above the edge of the throne one saw with a start minute elfin eyes peering out of the glow. No face, but eyes, … and then below I distinguished the little dwarfed body and its insect-jointed limbs shriveled and white. (*The First Men in the Moon* 187)

4. The Evolutionary Theory in *The Time Machine*

In *The Time Machine*, the two most prominent scientific themes are time travel and evolution. The main character, firstly named the Time Traveler, travels more than 800,000 years in the future where he meets the human descendants. He observes the Eloi and the Morlocks, who are the reflection of Wells' contemporary society. The upper class has developed into the Eloi, whereas the working class became the Morlocks. To his horror, he later finds out that the Eloi, who carefree live on the surface, are actually food for the Morlocks, who roam the underground tunnel system they have created: "These Eloi were mere fatted cattle, which the ant-like Morlocks preserved and preyed upon" (*The Time Machine* 101).

The Time Machine poses a critical view of the then popular social Darwinism suggesting that the "survival of the fittest" in the animal kingdom can be applied to human society as well. In Wells' time, there was a great disparity between the upper-class and the working class, in which the former exploited the letter for food, work, and resources: "present merely temporary and social difference between the Capitalist and the Labourer, was the key to the whole position" (*The Time Machine* 77). In *The Time Machine*, that relationship is reversed and the working class ends up using the aristocracy for the most needed resource – the food. According to Jonsson, "if [the social system] is left to its devices without a clear plan that takes human evolution into account, it will at best achieve a stability that will make humanity degenerate into automatons" (304). Without any social restrictions and norms that would lead the human society to evolving, the human race would devolve into two extreme opposites: "feeble domestication through a lack of competition and brute savagery through a return to base instinct" (Jonsson 305). While "the too-perfect security of the Upper-worlders had led them to a slow movement of degeneration, to a general dwindling in size, strength, and intelligence" (*The Time Machine* Wells 80), the Under-worlders have remained strong, intelligent, and technologically advanced.

Conclusion

H.G. Wells gives a rather pessimistic view on science and progression of the human kind. In his equation, scientific progress and humankind do not equal evolution but rather dehumanization of mankind. By closely analyzing Wells' early literary works, a parallel can be drawn between the evolution of human kind without the limitations of society and the evolution of the scientist into the mad scientist without the restraints of morality and personal responsibility. If misused, science will turn humans into ruthless beasts who do not care about the wellbeing of the rest of humanity. With this interpretation of science in his novels, Wells expresses his fear of what humans will be capable of if they are not restricted by compassion and humanity. He toys with the idea of what humans are capable of doing in the name of scientific progress and implies that, if they are ready to rationalize that progress without morality, this will most probably cause humanity's deterioration. In conclusion, his influence on the genre of science fiction can be felt even today. The motifs of the mad scientist and the big-headed aliens still pervade in today's works of science fiction, and so are the problems of humanity that Wells has emphasized still part of the modern society.

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